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CLASSIFICATION AND CORRELATION OF THE SOILS OF

HENRY COUNTY INDIANA

FEBRUARY 1984

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U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MIDWEST NATIONAL TECHNICAL CENTER
LINCOLN, NEBRASKA

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Midwest National Technical Center
Lincoln, Nebraska 68508

Classification and Correlation of the Soils of Henry County, Indiana

The correlation was handled by correspondence by Steve R. Base, soil correlator, MNTC, Lincoln, Nebraska, and Jerry D. Larson, soil specialist, Indianapolis, Indiana. The field correlation, soils handbook, correlation samples, laboratory data, field notes, field sheets, and SCS-SOILS-5 forms were available. Maurice Stout, Jr. participated in the comprehensive field review September 29-October 2, 1980.

Headnote for Detailed Soil Survey Legend:
Map symbols consist of a combination of letters or of letters and numbers. The first capital letter is the initial one of the map unit name. The lowercase letter that follows separates map units having names that begin with the same letter, except that it does not separate sloping or eroded phases. The second capital letter indicates the class of slope. Symbols without a slope letter are for nearly level soils or miscellaneous areas. A final number of 2 indicates that the soil is moderately eroded and 3 that it is severely eroded.

Field Symbol	Field Map Unit Name	Publication Symbol	Approved Map Unit Name
CeA CeB2 CeB CrB2 PwB2	Celina silt loam, 1 to 6 percent slopes, eroded	CeB2	Celina silt loam, 1 to 6 percent slopes, eroded
MtB2	Miamian-Crosby silt loams, stony subsoil, 1 to 6 percent slopes, eroded	CfB2	Celina silt loam, stony subsoil, 1 to 6 percent slopes, eroded
CrA PwA RcA WhA WhB2	Crosby silt loam, 0 to 3 percent slopes	CrA	Crosby silt loam, 0 to 3 percent slopes
CsA	Crosby silt loam, stony subsoil, 0 to 3 percent slopes	CsA	Crosby silt loam, stony subsoil, 0 to 3 percent slopes
Pn Br Ko Ms Pa Tr	Patton silty clay loam, till substratum	Cy	Cyclone silty clay loam
FoA OcA	Fox silt loam, 0 to 2 percent slopes	EdA	Eldean silt loam, 0 to 2 percent slopes
FoB2 FoB OcB2	Fox silt loam, 2 to 6 percent slopes, eroded	EdB2	Eldean silt loam, 2 to 6 percent slopes, eroded
FoC2 CbC CbC2	Fox silt loam, 6 to 12 percent slopes, eroded	EdC2	Eldean silt loam, 6 to 12 percent slopes, eroded
FoD2 CbD2	Fox silt loam, 12 to 18 percent slopes, eroded	EdD2	Eldean silt loam, 12 to 18 percent slopes, eroded
FxE3 FoE2 RoE RoF CbE2	Fox silt loam, 18 to 35 percent slopes, eroded	EdE2	Eldean silt loam, 18 to 35 percent slopes, eroded
FxC3	Fox clay loam, 6 to 12 percent slopes, severely eroded	ExC3	Eldean clay loam, 6 to 12 percent slopes, severely eroded
FxD3 CbD3 CcD3	Fox clay loam, 12 to 18 percent slopes, severely eroded	ExD3	Eldean clay loam, 12 to 18 percent slopes, severely eroded

Field Symbol	Field Map Unit Name	Publication Symbol	Approved Map Unit Name
Ge Ee St	Genesee loam, occasionally flooded	Ge	Genesee loam, occasionally flooded
Sh Co	Shoals loam, sandy substratum, occasionally flooded	La	Landes loam, rarely flooded
SwB2 SwB3	Strawn silt loam, 2 to 6 percent slopes, eroded	LeB2	Losantville silt loam, 2 to 6 percent slopes, eroded
SwC2 KeC2 KfC3 MeC2 MmC2 MoC3	Strawn silt loam, 6 to 12 percent slopes, eroded	LeC2	Losantville silt loam, 6 to 12 percent slopes, eroded
SwD2 KeD2 KfD3 MmD2 MoD3	Strawn silt loam, 12 to 18 percent slopes, eroded	LeD2	Losantville silt loam, 12 to 18 percent slopes, eroded
SwE2 HeF KeE3 KfE3 MmE2 MoE3 SxE3	Strawn silt loam, 18 to 25 percent slopes, eroded	LeE2	Losantville silt loam, 18 to 30 percent slopes, eroded
SxC3	Strawn clay loam, 6 to 12 percent slopes, severely eroded	LhC3	Losantville clay loam, 6 to 12 percent slopes, severely eroded
SxD3	Strawn clay loam, 12 to 18 percent slopes, severely eroded	LhD3	Losantville clay loam, 12 to 18 percent slopes, severely eroded
LsB2	Lewisburg silt loam, stony subsoil, 2 to 6 percent slopes, eroded	LsB2	Losantville silt loam, stony subsoil, 2 to 6 percent slopes, eroded
LsC2	Lewisburg silt loam, stony subsoil, 6 to 12 percent slopes, eroded	LsC2	Losantville silt loam, stony subsoil, 6 to 12 percent slopes, eroded

Field Symbol	Field Map Unit Name	Publication Symbol	Approved Map Unit Name
LsD2	Lewisburg silt loam, stony subsoil, 12 to 18 percent slopes, eroded	LsD2	Losantville silt loam, stony subsoil, 12 to 18 percent slopes, eroded
LsE2	Lewisburg silt loam, stony subsoil, 18 to 30 percent slopes, eroded	LsE2	Losantville silt loam, stony subsoil, 18 to 30 percent slopes, eroded
LxC3	Lewisburg clay loam, stony subsoil, 6 to 12 percent slopes, severely eroded	LxC3	Losantville clay loam, stony subsoil, 6 to 12 percent slopes, severely eroded
LxD3	Lewisburg clay loam, stony subsoil, 12 to 18 percent slopes, severely eroded	LxD3	Losantville clay loam, stony subsoil, 12 to 18 percent slopes, severely eroded
Ak Ad Am Hu Hw Mh Pm Po Wa	Ackerman Variant, muck	Ma	Martisco muck, drained
MnA KeA MeA MmA	Miami silt loam, 0 to 2 percent slopes, moderately permeable substratum	MlA	Miami silt loam, gravelly substratum, 0 to 2 percent slopes
MnB2 KeB2 MeB2	Miami silt loam, 2 to 6 percent slopes, moderately permeable substratum, eroded	MlB2	Miami silt loam, gravelly substratum, 2 to 6 percent slopes, eroded
MmB2	Miami silt loam, 2 to 6 percent slopes, eroded	MmB2	Miamian silt loam, 2 to 6 percent slopes, eroded
MoB2	Miamian silt loam, stony subsoil, 2 to 6 percent slopes, eroded	MoB2	Miamian silt loam, stony subsoil, 2 to 6 percent slopes, eroded
Mx Re	Millgrove loam	Mx	Millgrove loam
Ot On	Orthents, loamy	Ot	Orthents and Aquents, loamy

Field Symbol	Field Map Unit Name	Publication Symbol	Approved Map Unit Name
Pt	Pits, gravel	Pt	Pits, gravel
Sg	Shoals silt loam, occasionally flooded	Sg	Shoals loam, occasionally flooded
Sk Ho	Sleeth silt loam	Sk	Sleeth silt loam
Sn	Sloan silt clay loam, occasionally flooded	Sn	Sloan silty clay loam, occasionally flooded
Ts	Treaty silty loam, stony subsoil	Ts	Treaty silt loam, stony subsoil
Wb Wc	Washtenaw silt loam	Wb	Washtenaw silt loam
We Se Ws	Westland silt loam	We	Westland silt loam

Series Established by This Correlation:

Losantville (type location in Henry County, Indiana)

Series Dropped or Made Inactive:

None

Certification Statement:
Henry County is joined by Delaware County on the north (correlated in 1968), Madison County on the northwest (correlated in 1965), Hancock County on the southwest (correlated in 1974), Fayette County on the southeast (correlated in 1952), Rush County on the south; Wayne County on the east, and Randolph County on the northeast with modern soil surveys in progress.

The mapping along the Henry County line joins in most cases except where soils were correlated which were not correlated in Henry County because of lab data, changes in concept of series, inclusions in mapping, and combinations of small acreage units with large ones during correlation. In these instances, the interpretations are similar. Slope ranges of map units differ somewhat because of slopes used that better fit landscapes in Henry County. The general soil maps join reasonably well except for variation in extent of the major soils and abrupt changes in landscape. Incomplete joins of the field sheets and general soil map are adequately documented.

The mapping is completed, interpretations have been coordinated, and all typical pedons are in soil areas using the map unit name. The legal descriptions of the location of the typical pedons are correct.

Verification of Exact Cooperator Names:
The following will be on the front of the publication:

United States Department of Agriculture
Soil Conservation Service
in cooperation with
Purdue University
Agriculture Experiment Station and
Indiana Department of Natural Resources
Soil and Water Conservation Committee

The citation in the box on the inside of the front cover will read:
"This survey was made cooperatively by the Soil Conservation Service, Purdue University Agricultural Experiment Station, and the Indiana Department of Natural Resources, Soil and Water Conservation Committee. It is part of the technical assistance furnished to the Henry County Soil and Water Conservation District. Financial assistance was made available by the Board of County Commissioners of Henry County."

Disposition of Field Sheets:
The original atlas field sheets for Henry County will be retained by the Indiana State Office, and will be used in the map compilation and finishing procedures. Copies have been made for fire protection purposes. The state office at Indianapolis will prepare the atlas sheets for publication by July 1982.

Prior Soil Survey Publications:
None--no soil survey specifically for the county.

Instructions for Soil Map Finishing:
The conventional and special symbols used in this survey are listed on the attached SCS-SOILS-37A. These symbols will be shown on the published maps. The maps will be finished using the "Guide for Soil Map Finishing," July 1976.

SCS-SOILS-37A
3-75

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

U.S DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Soil Survey Area: Henry County,
State: Indiana

Date: 8-12-81

CULTURAL FEATURES

BOUNDARIES

- County or parish
- Minor civil division
- Reservation (national forest or park, state forest or park, and large airport)
- Field sheet matchline & neatline
- AD HOC BOUNDARY (label)
- Small airport, airfield, park, oilfield, cemetery, or flood pool

STATE COORDINATE TICK
1 890 000 FEET

LAND DIVISION CORNERS (sections and land grants)

ROADS

- Divided (median shown if scale permits)
- County, farm or ranch
- Trail

ROAD EMBLEMS & DESIGNATIONS

- Interstate 68
- Federal 287
- State 52

RAILROAD

DAMS

- Large (to scale)
- Medium or small

PITS

- Gravel pit

CULTURAL FEATURES (cont.)

MISCELLANEOUS CULTURAL FEATURES

- Farmstead, house (omit in urban areas)
- Church
- School

WATER FEATURES

DRAINAGE

- Perennial, double line
- Perennial, single line
- Intermittent
- Drainage end
- Canals or ditches
- Drainage and/or irrigation

LAKES, PONDS AND RESERVOIRS

- Perennial (water, w)

MISCELLANEOUS WATER FEATURES

- Marsh or swamp

SPECIAL SYMBOLS FOR SOIL SURVEY

SOIL DELINEATIONS AND SOIL SYMBOLS

CrA EdB2

SHORT STEEP SLOPE

PRIME FARMLAND MAP UNITS

The following map units meet the soil requirements for prime farmland:

Publication Symbol	Approved Map Unit Name
CeB2	Celina silt loam, 1 to 6 percent slopes, eroded
CfB2	Celina silt loam, stony subsoil, 1 to 6 percent slopes, eroded
CrA	Crosby silt loam, 0 to 3 percent slopes (where drained)
CsA	Crosby silt loam, stony subsoil, 0 to 3 percent slopes (where drained)
Cy	Cyclone silty clay loam (where drained)
EdA	Eldean silt loam, 0 to 2 percent slopes
EdB2	Eldean silt loam, 2 to 6 percent slopes, eroded
Ge	Genesee loam, occasionally flooded
La	Landes loam, rarely flooded
LeB2	Losantville silt loam, 2 to 6 percent slopes, eroded
LsB2	Losantville silt loam, stony subsoil, 2 to 6 percent slopes, eroded
MlA	Miami silt loam, gravelly substratum, 0 to 2 percent slopes
MlB2	Miami silt loam, gravelly substratum, 2 to 6 percent slopes
MmB2	Miamian silt loam, 2 to 6 percent slopes, eroded
MoB2	Miamian silt loam, stony subsoil, 2 to 6 percent slopes, eroded
Mx	Millgrove loam (where drained)
Sg	Shoals loam, occasionally flooded (where drained)
Sk	Sleeth silt loam (where drained)
Sn	Sloan silty clay loam, occasionally flooded (where drained)
Ts	Treaty silt loam, stony subsoil (where drained)

Publication Symbol	Approved Map Unit Name
Wb	Washtenaw silt loam (where drained)
We	Westland silt loam (where drained)

Approved: February 21, 1984

Rodney F. Harner

RODNEY F. HARNER
Head, Soils Staff
Midwest NTC

CONVERSION LEGEND RELATING FIELD MAP SYMBOL TO PUBLICATION SYMBOL

Field Symbol	Publication Symbol	Field Symbol	Publication Symbol	Field Symbol	Publication Symbol
Ad	Ma	KfD3	LeD2	Pt	Pt
Ak	Ma	KfE3	LeE2	PwA	CrA
Am	Ma	Ko	Cy	PwB2	CeB2
Br	Cy	LsB2	LsB2	RcA	CrA
CbC	EdC2	LsC2 LeB2	LsC2 LeB2	Re	Mx
CbC2	EdC2	LsD2	LsD2	RoE	EdE2
CbD2	EdD2	LsE2	LsE2	RoF	EdE2
CbD3	ExD3	LxC3	LxC3	Se	We
CcD3	ExD3	LxD3	LxD3	Sg	Sg
CeB	CeB2	MeA	MlA	Sh	La
CeB2	CeB2	MeB2	MlB2	Sk	Sk
Co	La	MeC2	LeC2	Sn	Sn
CrA	CrA	Mh	Ma	St	Ge
CrB2	CeB2	MmA	MlA	SwB2	LeB2
CsA Cy	CsA Cy	MmB2	MmB2	SwB3	LeB2
Ee	Ge	MmC2	LeC2	SwC2	LeC2
FoA	EdA	MmD2	LeD2	SwD2	LeD2
FoB	EdB2	MmE2	LeE2	SwE2	LeE2
FoB2	EdB2	MnA	MlA	SxC3	LhC3
FoC2	EdC2	MnB2	MlB2	SxD3	LhD3
FoD2	EdD2	MoB2	MoB2	SxE3	LeE2
FoE2	EdE2	MoC3	LeC2	Tr	Cy
FxC3	ExC3	MoD3	LeD2	Ts	Ts
FxD3	ExD3	MoE3	LeE2	Wa	Ma
Ge FxE3	Ge EdE2	Ms	Cy	Wb	Wb
HeF	LeE2	MtB2	CfB2	Wc	Wb
Ho	Sk	Mx	Mx	We	We
Hu	Ma	OcA	EdA	WhA	CrA
Hw	Ma	OcB2	EdB2	WhB2	CrA
KeA	MlA	On	Ot		
KeB3 KeB2	MlB2	Ot	Ot		
KeC2	LeC2	Pa	Cy		
KeD2	LeD2	Pm	Ma		
KeE3	LeE2	Pn	Cy		
KfC3	LeC2	Po	Ma		

CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

Pedons Characterized at Purdue and Lincoln Labs

Sampled as	Pedon Sample No.	Publication Symbol	Approved Classification
Celina	S78IN-065-001	MmB2	Miamian
Fox	S80IN-067-003	EdA	Eldean
Millgrove	S78IN65-2-(1-7)	Mx	Millgrove (Taxadjunct)
Shoals	S80IN65-5-(1-7)	Sg	Shoals
Shoals, sandy substratum	S79IN65-3-(1-5)	La	Landes
Sloan	S80IN65-3-(1-6)	Sn	Sloan
Hiser	S81IN65-1-(1-6)	LeB2	Losantville
Crosby	S69IN33-3-(1-6)	CrA	Crosby
Crosby	S69IN33-1-(1-8)	CrA	Crosby
Crosby	S78IN65-7-(1-6)	CrA	Crosby

Additional Lab Data to Characterize Soil Map Units, Characterized at Purdue and Lincoln Labs

Sampled as	Pedon Sample No.	Publication Symbol	Approved Classification
Brookston	S78IN65-6-(1-8)	Cy	Cyclone (Taxadjunct)
Eel	S80IN65-4-(1-6)	Ge	Eel
Miami	S78IN65-4-(1-6)	MmB2	Miami
Miami	S80IN-065-001	MmB2	Miami
Miami, gravelly substratum	S80IN-065-002	MlA	Miami, gravelly substratum
Strawn	S79IN65-2-(1-5)	LhC3	Strawn
Treaty	S79IN65-3-(1-7)	Cy	Cyclone (Taxadjunct)

Notes to Accompany Classification and Correlation of the Soils of Henry County, Indiana

by

Jerry D. Larson
and
Steve R. Base

An area in the northeast corner of Henry County (see General Soil Map) is part of a boulder belt that includes part of Randolph and Wayne Counties, Indiana, and extends into Ohio. This area is recognized by land appraisers as a problem area for tilling operations and tilling compared to the rest of Henry County.

CYCLONE SERIES
This soil is a **taxadjunct** because it lacks an argillic horizon. It is a fine-silty, mixed, mesic Typic Haplaquoll.

LOSANTVILLE SERIES
This soil is established by this correlation. It has formed in calcareous glacial till. It is a fine, mixed, mesic Typic Hapludalf.

MILLGROVE SERIES
This soil is a **taxadjunct** because it lacks an argillic horizon. It is a fine-loamy, mixed, mesic Typic Haplaquoll.

SHOALS SERIES
The control section is a little more alkaline and shallower to carbonates than described for the series. However, it is not considered a taxadjunct.

WASHTENAW SERIES
This soil is a **taxadjunct** because the chroma is lower than described for the series. This is a fine-loamy, mixed, nonacid, mesic Typic Fluvaquent.

CLASSIFICATION OF THE SOIL

Soils Series	Classification
Aquents	Loamy, mixed, mesic Haplaquents
Celina	Fine, mixed, mesic Aquic Hapludalfs
Crosby	Fine, mixed, mesic Aeric Ochraqualfs
*Cyclone	Fine-silty, mixed, mesic Typic Argiaquolls
Eldean	Fine, mixed, mesic Typic Hapludalfs
Genesee	Fine-loamy, mixed, nonacid, mesic Typic Udifluvents
Landes	Coarse-loamy, mixed, mesic Fluventic Hapludolls
Losantville	Fine, mixed, mesic Typic Hapludalfs
Martisco	Fine-silty, carbonatic, mesic Histic Humaquepts
Miami	Fine-loamy, mixed, mesic Typic Hapludalfs
Miamian	Fine, mixed, mesic Typic Hapludalfs
*Millgrove	Fine-loamy, mixed, mesic Typic Argiaquolls
Orthents	Loamy, mixed, mesic Udorthents
Shoals	Fine-loamy, mixed, nonacid, mesic Aeric Fluvaquents
Sleeth	Fine-loamy, mixed, mesic Aeric Ochraqualfs
Sloan	Fine-loamy, mixed, mesic Fluvaquentic Haplaquolls
Treaty	Fine-silty, mixed, mesic Typic Argiaquolls
*Washtenaw	Fine-loamy, mixed, nonacid, mesic Aeric Fluvaquents
Westland	Fine-loamy, mixed, mesic Typic Argiaquolls

*Taxadjunct--see "Notes to Accompany Classification and Correlation of the Soils of Henry County, Indiana" for details.